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EXAMINER	
SHANG, ANNAN Q	

ART UNIT	PAPER NUMBER
2614	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/603,339	STROTHMANN ET AL.	
	Examiner	Art Unit	
	Annan Q Shang	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 9-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 9-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 9, 10 and 14-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Winter (6,678,008)** in view of **Chung et al (6,507,696).**

As to claim 1, note the **Winter** reference figure 7, discloses an apparatus for generating a digital video picture composed of a plurality of components, a main picture and secondary picture and further discloses a method for providing graphics for display, the claimed method comprises the following:

the claimed "receiving a bitstream including an MPEG compliant program bitstream...is met by Receiver (Rec) 41 (fig. 1, 7, col. 3, lines 38-53 and col. 6, lines 26-45), note that Rec 41 is a satellite receiver, a set-top box for receiving digital television "MPEG compliant program bit-stream" including a video, audio, data as well as data for subtitles, read from a DVD or received via an antenna/satellite;

the claimed "extracting and decoding the MPEG compliant bitstream to generate a program image signal" is met by Separator Circuit (SepC) 43 and Subpicture Decoding Unit (Sub-Deco) 45 (col. 6, lines 37-45) which separate and extracts the video, audio and subpicture "DVD subpicture" data and transferred accordingly to a

Video Decoding Unit (Vi-Deco) 44, which generates an image signal and a Sub-Deco 45 or an Audio Decoding Unit (Au-Deco) 46;

the claimed "combining the program image signal and the graphic image signal to provide and output display signal....is met by Multiplexing Unit 47 (col. 6, lines 43-59), note that the Multiplexing Unit 47 combines the audio/video signal, the program image signal, and the subpicture, the graphical image signal, to provide TV signal via Output 57 to a TV display unit.

Winter, fails to explicitly teach where the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes the display of other DVD subpicture graphics associated with the subpicture compliant bitstream.

However, note **Chung et al** reference figures 1-3, disclose method and apparatus for displaying DVD and/or application data, which includes DVD subpicture and an application subpicture, where the DVD subpicture further includes interactive graphic having selectable regions (fig. 2) and selecting the graphical objects, causes the display of other DVD subpicture graphics (fig. 3) associated with the subpicture compliant bitstream (col. 3, line 37-col. 4, line 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chung into the system of Winter to provide a interactive DVD subpicture to enable the user to interacts to retrieve additional information or data.

As to claim 2, Winter further discloses where the received bit stream comprises a plurality of DVD subpicture bit stream which are extracted and decoded to generate a plurality of graphical image signals (fig. 8 and col. 7, lines 20-32 and line 49-63).

As to claim 3, Winter further discloses where at least one of the DVD subpicture compliant bitstreams is buffered (col. 8, lines 17-39)

As to claim 5, Winter further discloses where the DVD subpicture compliant bitstream comprises an MPEG still image (col. 8, lines 17-39), note that the subpictures are still images.

As to claim 6, Winter further discloses where the DVD subpicture compliant bitstream comprises a program guide (col. 3, lines 48-53), note that the subtitles provided on the DVD subpicture form a program guide.

Winter fails to explicitly teach an interactive subtitles or interactive program guide.

However, **Chung** discloses displaying DVD and/or application data, which includes DVD subpicture and an application subpicture, where the DVD subpicture further includes interactive graphic having selectable regions (fig. 2, 3 and col. 3, line 37-col. 4, line 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching Chung into the system of Winter to provide a interactive DVD subpicture to enable the user to interacts to retrieve additional information or data.

As to claim 9, Winter fails to explicitly teach where the interactive graphic comprises a selectable region that, when selected, causes the receiver to decode a particular MPEG bitstream.

However, **Chung** discloses displaying DVD and/or application data, which includes DVD subpicture and an application subpicture, where the DVD subpicture and Application subpicture further includes interactive graphic having selectable regions, where when selected, causes the display of DVD subpicture, Application subpicture or merged DVD subpicture and Application subpicture (fig. 2, 3 and col. 3, line 37-col. 4, line 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chung into the system of Winter to provide a interactive DVD subpicture with selectable graphics that when selected causes the display or receiver to decode other Application subpicture bitstream, such as MPEG bitsteams to enable the user to interact and retrieve other application bitream for additional information or data.

As to claim 10, note the **Winter** reference figure 7, discloses an apparatus for generating a digital video picture composed of a plurality of components, a main picture and secondary picture and further discloses a video signal processing apparatus, the apparatus comprising...is met as follows:

the claimed "receiving a bitstream including an MPEG compliant program bitstream...is met by Receiver (Rec) 41 (fig. 1, 7, col. 3, lines 38-53 and col. 6, lines 26-45), note that Rec 41 is a satellite receiver, a set-top box for receiving digital television

"MPEG compliant program bit-stream" including a video, audio, data as well as data for subtitles, read from a DVD or received via an antenna/satellite;

the claimed "means for parsing the received bitstream, and routing the MPEG compliant bitstream to a MPEG decoder, and routing the DVD subpicture compliant bitstream to a DVD subpicture processor..." is met by Separator Circuit (SepC) 43 (col. 6, lines 37-45) note that SepC 43, is a means for parsing the received bitstream and routing the video and audio, MPEG compliant bitstream, to a Video Decoding Unit (ViDecoU) 44, "MPEG Decoder," and routing the DVD subpicture to a Subpicture Decoding Unit (SubDecoU) 45, "DVD subpicture processor" where the ViDecoU 44, generates a program image signal in response to the audio/video data and the SubDecoU 45 generates graphical image signal in response to DVD Subpicture data (col. 6, lines 37-59) which separate and extracts the video, audio and subpicture "DVD subpicture" data and transferred accordingly to a Video Decoding Unit (Vi-Deco) 44, which generates an image signal and a Sub-Deco 45 or an Audio Decoding Unit (Au-Deco) 46;

the claimed "combining the program image signal and the graphic image signal to provide and output display signal....is met by Multiplexing Unit 47 (col. 6, lines 43-59), note that the Multiplexing Unit 47 combines the audio/video signal, the program image signal, and the subpicture, the graphical image signal, to provide TV signal via Output 57 to a TV display unit.

Winter, fails to explicitly teach where the DVD subpicture compliant bitstream comprises an interactive graphic having selectable regions that, when selected, causes

the display of other DVD subpicture graphics associated with the subpicture compliant bitstream.

However, note **Chung et al** reference figures 1-3, disclose method and apparatus for displaying DVD and/or application data, which includes DVD subpicture and an application subpicture, where the DVD subpicture further includes interactive graphic having selectable regions (fig. 2) which, when selected, cuases the display of other DVD subpicture graphics (fig. 3) associated with the subpicture compliant bitstream (col. 3, line 37-col. 4, line 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Chung into the system of Winter to provide a interactive DVD subpicture to enable the user to interacts to retrieve additional information or data.

Claim 14 is met as previously discussed with respect to claim 3.

Claim 15 is met as previously discussed with respect to claim 2.

Claim 16 is met as previously discussed with respect to claim 3.

As to claim 17, Winter further discloses where the apparatus further comprises a display processor, inherent to TV set 10, coupled to a Multiplexing Unit 47, Combining means, the generating an interactive program in response to the graphic image signal note page 6, lines 2-page 7, line 25,

3. Claim 4, is rejected under 35 U.S.C. 103(a) as being unpatentable over **Winter (6,678,008)** in view of **Chung et al (6,507,696)** as applied to claim 1 above, and further in view of **Arai et al (EP 0 921682).**

As to claim 4, **Winter** as modified by **Chung** teaches teach all the claimed limitation as previously discussed with respect to claim 1, but fails to specifically teach where the DVD subpicture compliant bitstream repeats in the MPEG bitstream.

However, note **Arai et al** reference figure 1, disclose a program information producing apparatus, broadcasts program information of the next program belong to the same program group as a subjective program in addition to the program information of the subjective program and broadcast receiving apparatus, displays the program information of the next program based on the received information of the subjective program, and allows a viewer to check its content and further disclose dividing program information data into MPEG-2 TS packets and repetitively transmitting section to the Multiplexing Unit 17 with the main program information produced from the video/audio stream, note col. 13, lines 1-58.

Therefore the examiner submits it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Arai into the system of Winter as modified by Chung in order to receive a continuous flow of information, e.g. text, caption, subpictures, etc.,

4. Claims 11 and 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Winter (6,678,008)** in view of **Chung et al (6,507,696)** as applied to claim 10 above, and further in view of **Yanagihara et al (6,211,800).**

As to claims 11 and 12, **Winter** as modified by Chung, teach all the claimed limitation as previously discussed with respect to clear 10, but fails to specifically teach where the receiving means comprises a digital interface and demodulator coupled to the

digital interface and the MPEG decoder, where the digital interface is IEEE 1394 digital Interface.

However, note **Yanagihara** reference figure 5, disclose Data that is an MPEG program stream (PS) read out from a disc is supplied to a PS/TS Converter via a variable rate control section and PS/TS Converter converts the PS MPEG data into a transport stream (TS) and transmits it to a presentation device via a 1394 transmission/reception section where the 1394 transmission/reception section of the presentation device is classified by a DEMUX section, an audio, video decoder that decodes TS MPEG data and D/A converters that converts resulting digital data into analog signals and output the analog signals, note col. 5, line 43-col. 6, line 20.

Therefore the examiner submits it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Yanagihara into the system of Winter as modified by Chung in order provide and high speed interface that transfers good quality video with low bandwidth.

5. Claim 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Winter (6,678,008)** in view of **Chung et al (6,507,696)** as applied to claim 10 above, and further in view of **Suzuki (6,344,836).**

As to claim 13, **Winter** as modified by Chung, teach all the claimed limitation as previously discussed with respect to clear 10, but fails to specifically teach where the receiving means comprises a digital interface and demodulator coupled to the digital interface and where the digital interface is a USB digital interface.

However, note the **Suzuki** reference figure 1, disclose an information browsing system with one system device and a plurality of displays connected to the system device by a USB digital interface, note figure 1 and col. 5, lines 10-23 and col.6, line 6-20.

Therefore the examiner submits it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of into the system of Suzuki into the system of Winter as modified by Chung in order to provide a digital interface that easily connects devices together.

Response to Arguments

6. Applicant's arguments with respect to claims 1-6 and 9-17 have been considered but are moot in view of the new ground(s) of rejection discussed above. This Office Action is Non-final.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mobini et al (6,564,255) disclose method and apparatus for enabling Internet access with DVD bitstream.

Watkins (6,230,295) discloses bitstream assembler for comprehensive verification of circuit, devices, and systems.

Sturgeon et al (6,064,385) disclose systems with user preference setting schemes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free).**

Annan Q. Shang

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